

REMARKS

Claims 1-24 are pending. Claims 1, 2, 11, 12, 21 and 23 have been amended. Applicants respectfully request reconsideration of the application in response to the non-final Office Action.

Claim Rejections under 35 U.S.C. §103(a)

Claims 1-3, 6-13 and 16-24 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over "The Virtual Reality Modeling Language Specification Version 2.0" to Bell et al. ("Bell") in view of U.S. Patent Application Publication No. 20020026642 to Augenbraun et al. ("Augenbraun"). Applicants traverse this rejection for at least the following reasons.

Claim 1, as amended, recites a user request processing method that includes, among other features, "the terminal forming an upstream channel message if a user request of predetermined processing of a predetermined object occurs in a scene transmitted from the server to the terminal through the downstream channel, and transmitting the message to the server through the upstream channel, wherein the upstream channel message identifies a corresponding node in the scene in which the user request occurred." The specification of the instant application describes an exemplary embodiment in which a node interpreter 410 defines a corresponding node in the current scene in which the user request is generated using a node identifier (NodeID), and an upstream channel message transmitter 430 forms an upstream channel message that combines the node identifier with commands to be executed in the server for the defined node, in accordance with the user request. (Specification at page 8, lines 4-7 and 26-32 and page 9, lines 1-2).

For example, the specification describes an exemplary upstream channel message “retransmit NodeID 5” for the scene illustrated in FIG. 6B, in which an error occurred at the node having a NodeID of “5.” (Specification at page 10, lines 13-20). In this case, the upstream channel message “retransmit NodeID 5” identifies the corresponding node in the scene in which the user request occurred (i.e., “NodeID 5”), in combination with the command to be executed in the server for the defined node (i.e., “retransmit”).

Further, Applicants note that in accordance with embodiments of the present invention, the upstream channel message, which identifies a corresponding node in the scene in which the user request occurs, can be selectively processed, so that the volume of information to be transmitted for restoration from the error can be minimized and the terminal can quickly receive the restored information. (See, Specification at page 9, line 30 to page 10, line 4 and page 11, lines 5-13).

Applicants respectfully submit that claim 1 is patentable over Bell in view of Augenbraun. At a minimum, no combination of Bell and Augenbraun appears to teach or suggest “the terminal forming an upstream channel message if a user request of predetermined processing of a predetermined object occurs in a scene transmitted from the server to the terminal through the downstream channel,” and “the upstream channel message identifies a corresponding node in the scene in which the user request occurred,” as recited in claim 1. Further, because neither Bell nor Augenbraun teaches the upstream channel message identifies a corresponding node in the scene in which the user request occurred, the efficiencies described above due to selective node processing cannot be achieved by the combination of references.

For example, Bell describes “anchor” syntax for a Virtual Reality Modeling Language (VRML) file that directs a browser to fetch a particular URL over a network when a user activates some geometry in a three-dimensional scene. (See, Bell at Chapter 5, pages 151-152). Bell provides exemplary anchor syntax for a three-dimensional scene that can be used to direct a browser to fetch the URL “http://www.school.edu/vrml/someScene.wrl#OverView” when a user clicks on a “box” geometry in the scene. (Bell at Chapter 5, page 152). Even if user selection of a VRML object for which anchor syntax specifying a URL implies that the browser will form and send a message to a server that includes the specified URL, as suggested by the Office, nowhere does Bell indicate that such a message would identify a corresponding node in the scene in which the user request occurred, as recited in claim 1. (See, Office action at page 3).

Additionally, Augenbraun describes facilitating hyperlinking from a broadcast television program to a web page. (Augenbraun at Abstract). While Augenbraun describes a terminal processor of a set top box sending a hyperlink request to a headend processor in response to a request received from a user, nowhere does Augenbraun describe sending a message to the headend processor that identifies a corresponding node in a three-dimensional scene, as suggested by the Office. (See, Office action at page 4 and Augenbraun at paragraph [0031]). In fact, the passages cited by the Office as apparently showing the feature of “defining the corresponding node in the scene” pertain to the terminal processor determining the identity of a hyperlink requested by the user using a channel mapping database and linkage commands inserted at the headend. (See, Augenbraun at paragraphs [0031]-[0032]). Applicants respectfully assert that mapping a hyperlink request received

from a user to an appropriate downstream channel and time slot/packet identifier therein is not analogous to identifying a corresponding node in a three-dimensional scene in which a user request occurred. (See, Augenbraun at paragraph [0011]). Thus, Applicants submit that independent claim 1 and, for analogous reasons, independent claim 11, are patentable over Bell in view of Augenbraun.

Similarly, for reasons analogous to those presented for claims 1 and 11, Applicants submit that independent claims 21 and 23 are also patentable over Bell in view of Augenbraun. At a minimum, no combination of Bell and Augenbraun appears to teach or suggest "the upstream channel message identifies a corresponding node in a three-dimensional scene in which the user request occurred," as recited in claims 21 and 23.

Accordingly, Applicants respectfully request that the rejection of claims 1, 11, 21 and 23, and of claims 2, 3, 6-10, 12, 13, 16-20, 22 and 24, which depend therefrom, under § 103(a) over Bell in view of Augenbraun be withdrawn.

Claims 4, 5, 14 and 15 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bell in view of Augenbraun and further in view of U.S. Patent No. 6,654,761 to Tenev et al. ("Tenev"). Applicants traverse this rejection for at least the following reasons.

For at least the reasons presented for independent claims 1 and 11, Applicants submit that claims 4, 5, 14 and 15, which depend therefrom, are patentable over Bell in view of Augenbraun, and that Tenev does not supply the teachings missing from Bell and Augenbraun. At a minimum, no combination of Bell, Augenbraun and Tenev appears to teach or suggest "the terminal forming an upstream channel message if a user request of predetermined processing of a

predetermined object occurs in a scene transmitted from the server to the terminal through the downstream channel,” and “the upstream channel message identifies a corresponding node in the scene in which the user request occurred,” as recited in claim 1. Accordingly, Applicants respectfully request that the rejection of claims 4, 5, 14 and 15 under § 103(a) over Bell in view of Augenbraun and further in view of Teney be withdrawn.

Conclusion

Applicants have noted significant differences between the disclosures of Bell, Augenbraun and Tenev and the present application and, as a result, have provided reasoned arguments as to why the elements of the claims of the present application are not disclosed by or rendered obvious thereby.

It is believed that no additional fees are required to accompany this Amendment. However, if additional fees are required for any reason, please charge Deposit Account No. 02-4800 the necessary amount.

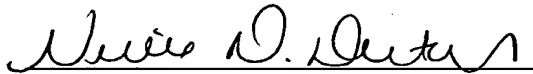
In the event that there are any questions concerning this paper, or the application in general, the Examiner is respectfully urged to telephone Applicants' undersigned representative so that prosecution of the application may be expedited.

Respectfully submitted,

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